

IN THE CLAIMS:

Please amend claims as follows:

1. (Currently Amended) An apparatus, ~~for wirelessly communicating with at least one mobile unit within a wireless local area network, wherein the wireless local area network communicates with an external, wired, computer network, the apparatus comprising:~~

a base module positioned within a stack, ~~wherein the said stack forms~~ being associated with a node within of a the wireless local area network, and said wireless local area network being configured to communicate with an external wired network;

an antenna module positioned within ~~the~~ the stack;  
and

~~at least a first~~ one or more wireless module modules positioned within ~~the~~ the stack and coupled to the base and antenna modules ~~[[7]]~~, ]

~~wherein at least the first~~ each of said wireless ~~module~~ modules is configured to perform automatic self-discovery ~~[[7]]~~ ] ~~wherein performing automatic self-discovery includes:~~ by automatically determining a position of ~~the~~ said each of the wireless ~~modules~~ module within the stack ~~[[7]]~~, ] by automatically identifying other wireless modules in the stack; ~~and, and by~~ and by automatically determining whether said each of said wireless modules ~~the node is~~ configured to communicate with said external ~~wired the external, wired, computer network via a wired or wireless communication link.~~

2. (Currently Amended) The apparatus of claim 1, wherein said determining whether said each of said wireless modules is configured to communicate with said external wired network via a wired or wireless communication link is provided by ~~wherein the first wireless module periodically performs automatic self-discovery, and wherein determining whether the node is coupled to communicate with the computer network includes determining whether a Dynamic Host Configuration Protocol (DHCP) was received wirelessly or via a wired Ethernet~~ ETHERNET connection.

3. (Currently Amended) The apparatus of claim 1, wherein at least one of said ~~the first wireless module~~ modules comprises ~~includes~~ a finite state machine configured to perform said automatic self-discovery.

4. (Currently Amended) The apparatus of claim 1, ~~further comprising a second wireless module positioned within the stack and coupled to the base and antenna modules, wherein the second module is configured to perform automatic self-discovery, and wherein at least two of said the first and second~~ one or more wireless modules employ different short-range wireless protocols each implement a different IEEE 802 type wireless protocol.

5. (Currently Amended) The apparatus of claim ~~1~~ 4, wherein said different short-range wireless protocols comprise at least two different IEEE 802.11-type protocols, or a combination of at least one of said one

or more IEEE 802.11-type protocols and a BLUETOOTH protocol.

~~further comprising wherein said automatic self-discovery comprises automatically determining whether the apparatus is an access point or a backhaul for the wireless local area network, and~~

~~wherein determining whether the node is coupled to communicate with the computer network includes determining whether a network address was received via a wired or wireless connection.~~

6-37. (Cancelled)

38. (New) The apparatus of claim 1, wherein said apparatus is configured to communicate wirelessly with one or more mobile units within said wireless local area network.

39. (New) The apparatus of claim 1, wherein said apparatus is configured to provide connectivity to the said external wired network.

40. (New) The apparatus of claim 1, wherein a role of said each of said wireless modules, to be an access point or a wireless backhaul, is determined by said Dynamic Host Configuration Protocol being received wirelessly or via the wired ETHERNET connection, by said position of said each of the wireless modules within said stack, and by functionality of said other modules of said stack identified using said self-discovery.

41. (New) A method, comprising:

performing, by each of wireless modules comprised in a stack associated with a node of a wireless local area network, an automatic self-discovery by automatically determining a position of said each of the wireless modules within said stack, by automatically identifying other wireless modules in the stack, and by automatically determining whether said each of said wireless modules is configured to communicate with an external wired network via a wired or wireless communication link,

wherein said stack further comprises a base module and an antenna module, said wireless local area network is configured to communicate with said external wired network, and said each of said one or more wireless modules are coupled to said base and antenna modules.

42. (New) The method of claim 41, wherein said determining whether said each of said wireless modules is configured to communicate with said external wired network via a wired or wireless communication link is provided by determining whether a Dynamic Host Configuration Protocol was received wirelessly or via a wired ETHERNET connection.

43. (New) The method of claim 41, wherein one or more of said wireless modules comprise a finite state machine configured to perform said automatic self-discovery.

44. (New) The method of claim 41, wherein at least two of said one or more wireless modules employ different short-range wireless protocols .

45. (New) The method of claim 44, wherein said different short-range wireless protocols comprise at least two different IEEE 802.11-type protocols, or a combination of at least one of said one or more IEEE 802.11-type protocols and a BLUETOOTH protocol.

46. (New) The method of claim 41, wherein one or more of said wireless modules are configured to communicate wirelessly with one or more mobile units within said wireless local area network.

47. (New) The method of claim 41, wherein a role of said each of said wireless modules, to be an access point or a wireless backhaul, is determined by said Dynamic Host Configuration Protocol being received wirelessly or via the wired ETHERNET connection, by said position of said each of the wireless modules within said stack, and by functionality of said other modules of said stack identified using said self-discovery.

48. (New) A computer software product, comprising a computer-usable medium having computer readable instructions stored thereon for execution by a processor to perform a method comprising:

performing, by each of wireless modules comprised in a stack associated with a node of a wireless local area network, an automatic self-discovery by automatically determining a position of said each of the wireless modules within said stack, by automatically identifying other wireless modules in the stack, and by automatically determining whether said each of said wireless modules is

configured to communicate with an external wired network via a wired or wireless communication link,

wherein said stack further comprises a base module and an antenna module, said wireless local area network is configured to communicate with said external wired network, and said each of said one or more wireless modules are coupled to said base and antenna modules.

49. (New) The computer software product of claim 48, wherein said determining whether said each of said wireless modules is configured to communicate with said external wired network via a wired or wireless communication link is provided by determining whether a Dynamic Host Configuration Protocol was received wirelessly or via a wired ETHERNET connection.

50. (New) The computer software product of claim 48, wherein one or more of said wireless modules comprise a finite state machine configured to perform said automatic self-discovery.

51. (New) The computer software product of claim 48, wherein at least two of said one or more wireless modules employ different short-range wireless protocols .

52. (New) The computer software product of claim 51, wherein said different short-range wireless protocols comprise at least two different IEEE 802.11-type protocols, or a combination of at least one of said one or more IEEE 802.11-type protocols and a BLUETOOTH protocol.

53. (New) The method of claim 48, wherein said one or more of said wireless modules are configured to communicate wirelessly with one or more mobile units within said wireless local area network.

54. (New) The method of claim 48, wherein a role of said each of said wireless modules, to be an access point or a wireless backhaul, is determined by said Dynamic Host Configuration Protocol being received wirelessly or via the wired ETHERNET connection, by said position of said each of the wireless modules within said stack, and by functionality of said other modules of said stack identified using said self-discovery.